



## Z4-Series

### Economical

Effective, low-cost material level detection in a wide variety of applications, and a desirable alternative to electromechanical level switches. No expendable parts to buy and stock. No expensive, extra-cost options.

### Maintenance-Free

Unlike paddle wheels, vibrating tines or other mechanical instruments, there are no components to jam, break or wear out. No need for routine maintenance, cleaning or replacing of worn parts.

### Reliable Operation

Cote-Shield™ circuitry allows the Z-tron IV to ignore coatings or build up on the sensing element. There are no false signals from dust or tunneling.

### Easy-Installation

One-piece unit is easily installed through a single 3/4-inch, probe dependent vessel opening. Calibration is quick and simple.

### Z-tron IV™ Point Level Switch, a reliable low-cost, on/off level switch

The low-cost, Drexelbrook Z-tron IV level switch is unaffected by sticky coatings and impervious to corrosive liquids. The all-electronic design means no moving parts to wear, break or fail. Based on field-proven RF technology, the Z-tron IV is a simple and reliable on/off level switch.

The compact one-piece unit is inserted through a standard 3/4-inch, probe dependent, NPT opening into the vessel so that the sensing element is positioned at the desired high or low level. (Other connection types and sizes are also available.) When the material level reaches a predetermined point on the sensing element, it causes a change in status at the electronic unit, resulting in actuation of the DPDT relay. The relay can be used to operate alarms, annunciators, valves, or other control or indication devices.

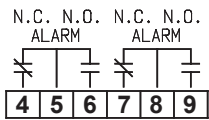
### Drexelbrook's Exclusive Cote-Shield™

Cote-Shield enables the Z-tron IV to ignore dust pileups, coatings, and sticky buildups on the sensing element.

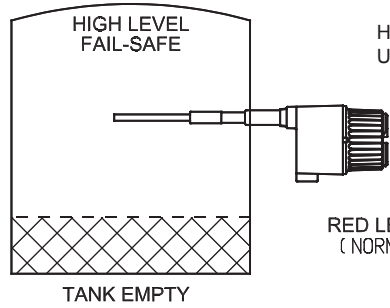
# Z-tron IV™ Z02X-Series

## Relay Wiring

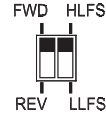
### High Level Fail Safe



N.C. = NORMALLY CLOSED  
N.O. = NORMALLY OPEN

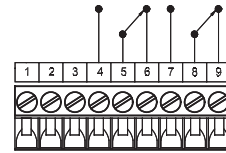


HLFS Switch  
Up = High Level Fail Safe

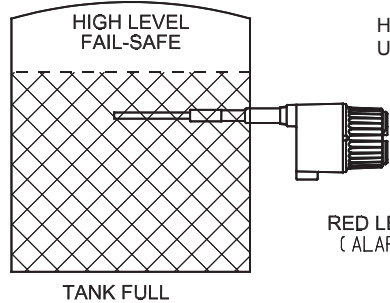


RED LED OFF  
(NORMAL)

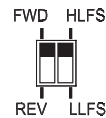
HIGH LEVEL FAIL-SAFE



LEVEL BELOW  
SENSING ELEMENT

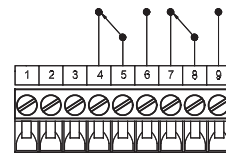


HLFS Switch  
Up = High Level Fail Safe



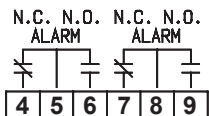
RED LED ON  
(ALARM)

HIGH LEVEL FAIL-SAFE

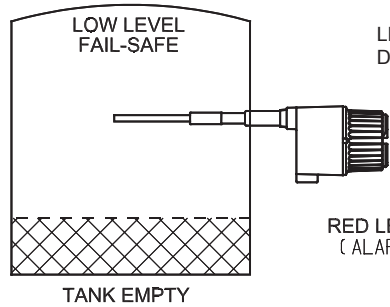


LEVEL ABOVE  
SENSING ELEMENT

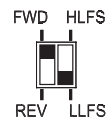
### Low Level Fail Safe



N.C. = NORMALLY CLOSED  
N.O. = NORMALLY OPEN

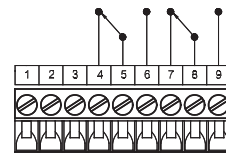


LLFS Switch  
Down = Low Level Fail Safe

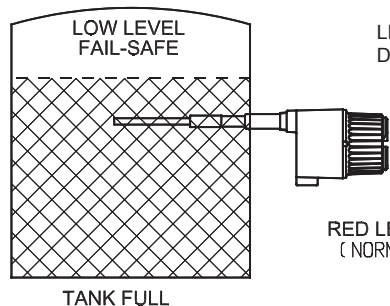


RED LED ON  
(ALARM)

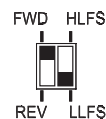
LOW LEVEL FAIL-SAFE



LEVEL BELOW  
SENSING ELEMENT

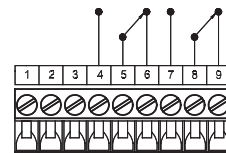


LLFS Switch  
Down = Low Level Fail Safe



RED LED OFF  
(NORMAL)

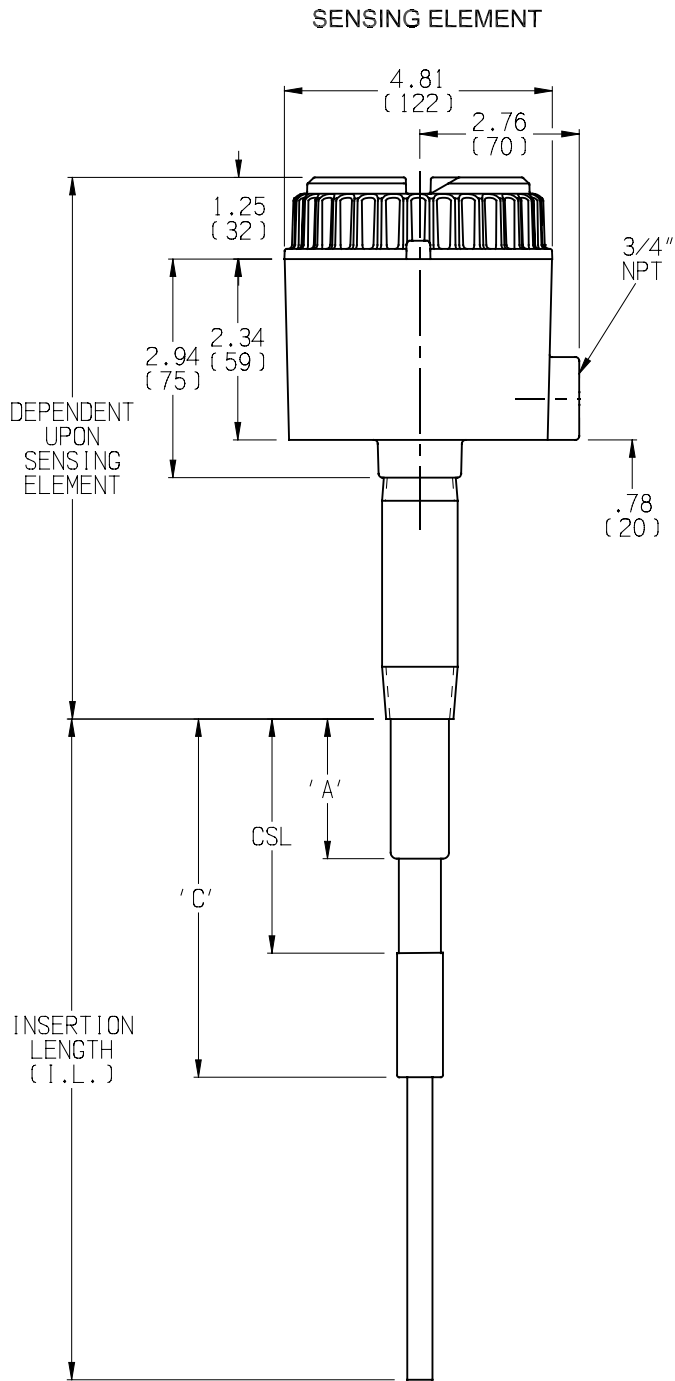
LOW LEVEL FAIL-SAFE



LEVEL ABOVE  
SENSING ELEMENT

# Z-tron IV™ Z02X-Series

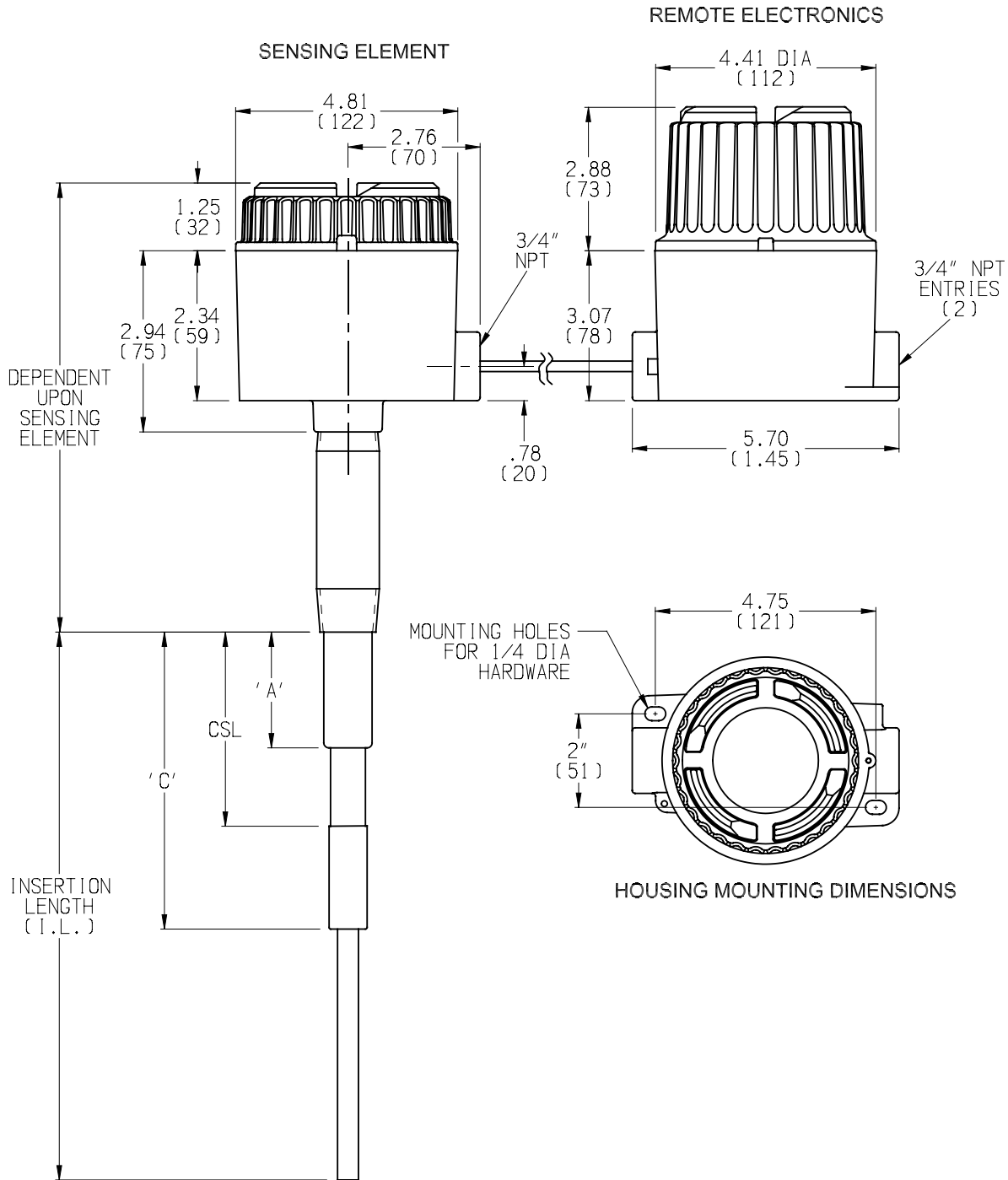
## Integral Mounting Dimensions



DIMENSIONS ARE IN INCHES (mm)

# Z-tron IV™ Z02X-Series

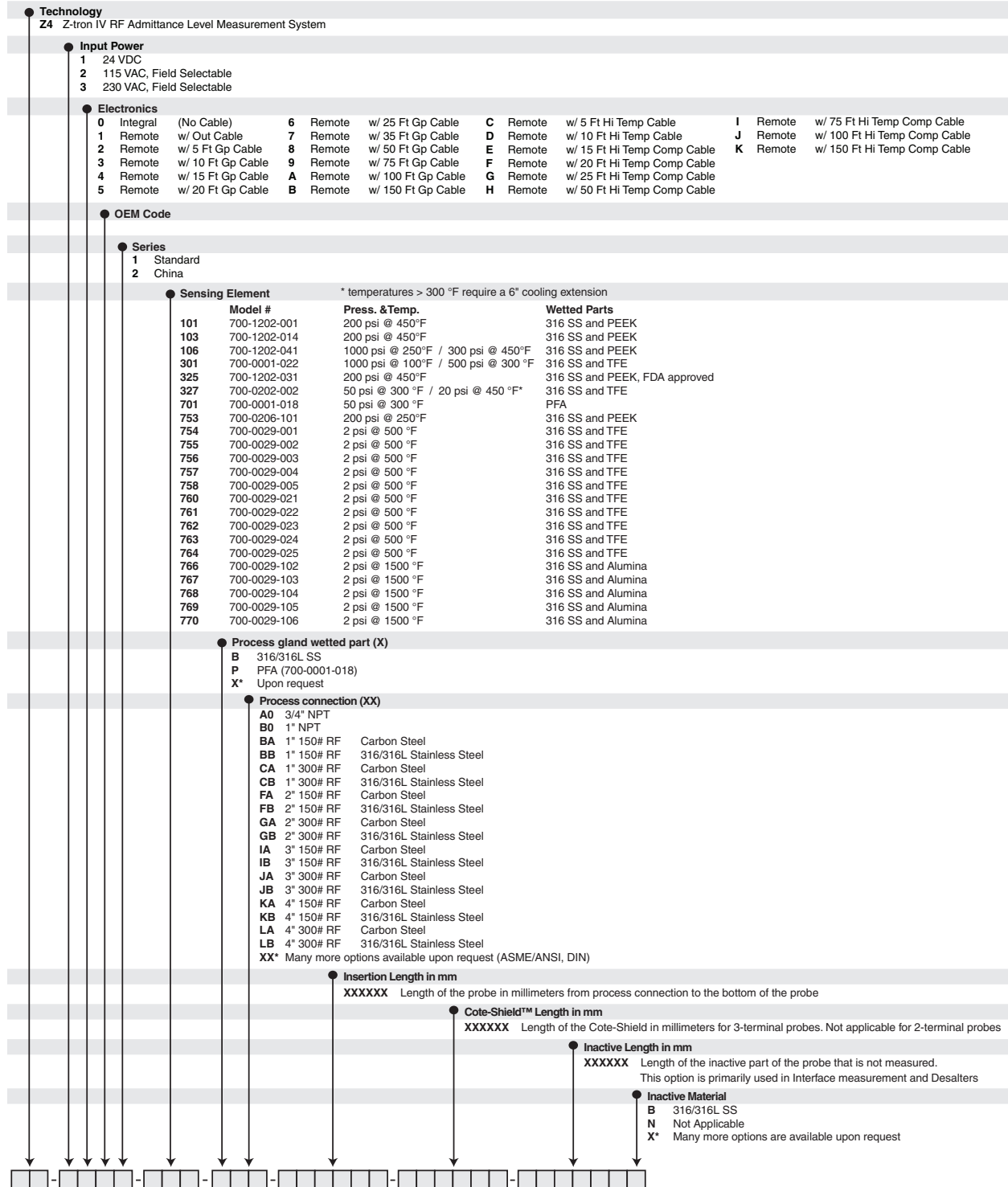
## Remote Mounting Dimensions



DIMENSIONS ARE IN INCHES (mm)

# Z-tron IV™ Z02X-Series

## Model Numbering



# Z-tron IV™ Z02X-Series

## Specifications

### Power Requirements:

AC Units - Field Adjustable:  
95-145 VAC, 50/60 Hz, 2 Watt  
215-265 VAC, 50/60 Hz, 2 Watt  
DC Units:  
24 VDC Unit: 19-29 VDC input, 2 Watt

### Sensitivity:

0.3pF or less

### Operating Point Range:

0 - 80 pF (20 Turn Pot / 4 pF per Turn)  
Extended range with external pad capacitor, Pad ratio 1:1

### Load Resistance:

Center to Ground, 1500 Ohms  
Center to Shield, 750 Ohms  
Shield to Ground, 750 Ohms

### Failsafe:

Field adjustable to either High-Level Fail-Safe (HLFS)  
or  
Low-Level Fail-Safe (LLFS)

### Output:

DPDT relay closure

### Contact Rating:

5A @ 120 Vac non-inductive  
2A @ 230 Vac non-inductive

### Ambient Temperature:

-40°F to 145°F (-40°C to 63°C)

### Temperature Effect:

0.5pF/50°F

### Line Voltage Effect:

0.2pF/20V @ 120 Vac

### Stability:

0.15pF/6 mo. maximum shift

### Spark Protection:

100 Amp

### Mounting: (Probe Dependant)

¾-inch NPT (Typical)

### Housing:

The standard housing meets the following classifications:

Nema 1	General-Purpose
Nema 2	Drip-Tight
Nema 3	Weather-Resistant
Nema 4	Waterproof
Nema 5	Dust-Tight
Nema 12	Industrial Use

If hazardous area approval is required, use the Drexelbrook PXL The Point™ instrument for point level control.

### Time Delay:

0-60 seconds (¾ Turn Pot) 270° Potentiometer

### Approvals

FM / FMC 3810 General Purpose